

Pierce College at Joint Base Lewis-McChord

Course Syllabus

Course dates: 01/06/20 – 03/11/20

COURSE TITLE: Preparatory Chemistry

ABBREVIATION: Chem&100

CREDIT HOURS: 5

INSTRUCTIONAL HOURS: 50

LAB HOURS: 0

INSTRUCTOR: Shuren Xu

INSTRUCTOR INTRODUCTION: I have been teaching Chemistry for Pierce College Military Program over 18 years. My academic credentials include:

BA in Animal Nutrition from China.

MS and Ph.D. in Animal Nutrition from Norway.

Post-Doctoral Research in Animal Nutrition at Washington State University

COMMUNICATIONS: All course communications will be through the Canvas course inbox.

PREREQUISITE: None

CATALOG DESCRIPTION: Introductory course in chemistry for students intending to take Chem& 121 and Chem& 131. Discussion of basic chemical concepts, including atomic structure, periodic properties, chemical bonding, and chemical nomenclature.

REQUIRED TEXT AND MATERIALS: Foundations of College Chemistry, alternate 14th, Edition, Morris Hein & Susan Arena. John Wiley & Sons, Inc., 2014. Textbooks are available at

<http://piercebookstore.bncollege.com/webapp/wcs/stores/servlet/TBWizardView?catalogId=10001&langId=-1&storeId=65224>

COURSE GUIDANCE:

1. **Proctoring:** This course may have online proctoring required for assessments. I will furnish proctoring information very early in the course so you can make necessary arrangement well in advance of the proctored assessment(s).
2. **Course Expectations:** As a student, you can expect that I will respond to your e-mail within 48 hours and will grade assignments/tests/quizzes within four (4) days. Exceptions will be announced in advance. Please contact me immediately if you have not heard from me within these timelines.
3. **Introductions:** Students are expected to post a short (one paragraph) introduction to the course Discussions Area during the first week of the course. I have guidelines within the course for the introduction located in the **first Module**.
4. **Discussions:** This course may have discussions as part of the curriculum. Students may also desire to discuss topics with other students in an unscheduled manner. I, as part of the course, may publish discussion questions/topics and require your input. Should you desire to hold a discussion with other students enrolled in your course, you may be authorized to create your own discussion topics.
5. **Course Incompletes:** are not automatic and must be requested from me. Incompletes must be approved and arranged with me.

- Student Responsibilities:** Please remember that it is your responsibility to notify me of major changes in your circumstances (e.g. deployment) that affect your ability to complete all course work within the course timeline.
- Plagiarism software:** Plagiarism software may be in use during your course.
<http://www.pierce.ctc.edu/library/plagiarizing>
- Etiquette:** Etiquette for classroom and online courses is the same. Treat others as you would like to be treated, respectfully and compassionately.

STUDENT OUTCOMES: Upon successful completion of this course, you should be able to:

- Recognize and use chemical symbols for elements and compounds.
- Balance simple chemical equations.
- Solving problems using units in dimensional analysis including kilo-, centi-, milli-, metric prefixes, along with simple English/metric conversions.
- Express and manipulate numbers using scientific notation and significant figures.
- Appreciate why measured quantities need to be expressed using significant figures.
- Relate energy changes to chemical equations.
- Describe the basic structure of atoms and ions and relate them to their location on Periodic Table, their charge, and the number of fundamental particles.
- Relate physical and chemical properties to the Periodic Table, including metals, nonmetals, metalloids, group names, ionic charge, valence electrons.
- Demonstrate an understanding of the basics of chemical bonding including polarity of diatomic molecules.
- Demonstrate a working knowledge of inorganic nomenclature.
- Describe the states and properties of matter.
- Demonstrate an understanding of the mole and Avogadro's number.
- Perform gram/mole conversions and perform mole/mole stoichiometric calculations.
- Make and interpret graphs.
- Use chemical vocabulary appropriately.

COURSE REQUIREMENTS: Upon successful for this class, the student should complete following requirements:

- Student should read Chapter 1 - 9 and submit written or typed Chapter assignments (total 9 Chapter, 90 points).
- Tests: 3 tests will be given in this course.
- Test 1 covers Chapters 1 – 4, 100 points.
- Test 2 covers Chapters 5 – 7, 100 points.
- Test 3 covers Chapters 8 – 9, 100 points.

GRADING:

Each assignment and assessment will be given a specific point value. The earned value of all possible points will determine grade, per Pierce College published policy:

WEIGHT OF ASSIGNMENTS/ASSESSMENTS:

Category	# per module	# per course	Value
Writing Assignments (10 pts. Each Chapter)			90 pts.
Tests (100 pts. each)			<u>300 pts.</u>
Total			390 pts.

(Divide your total points by the value of the assignments/assessments to calculate your current % and grade.)

GRADE SCALE: See <http://www.pierce.ctc.edu/about/policy/grading> for District Grading Policy

Grade Point: 4.0 - 3.9	Letter Grade: A	Percentage: 100 – 95%
Grade Point: 3.8 - 3.5	Letter Grade: A-	Percentage: 94 – 90%
Grade Point: 3.4 – 3.2	Letter Grade: B+	Percentage: 89 – 87%
Grade Point: 3.1 – 2.9	Letter Grade: B	Percentage: 86 – 84%
Grade Point: 2.8 – 2.5	Letter Grade: B-	Percentage: 83 – 80%
Grade Point: 2.4 – 2.2	Letter Grade: C+	Percentage: 79 – 77%
Grade Point: 2.1 – 1.9	Letter Grade: C	Percentage: 76 – 74%
Grade Point: 1.8 – 1.5	Letter Grade: C-	Percentage: 73 – 70%
Grade Point: 1.4 – 1.2	Letter Grade: D+	Percentage: 69 – 65%
Grade Point: 1.1 – 1.0	Letter Grade: D	Percentage: 64 - 60%
Grade Point: 0.0	Letter Grade: F	Percentage: < 59%

COURSE SCHEDULE:

You will accomplish each module's learning objectives, which align with the course outcomes, by completing the readings and assessments as listed in the schedule, below.

	Module	Chapters	Requirements	Outcomes*
Week 1	1	1 and 2	Homework 1 and 2 due.	1, 3, 4, 5
Week 2	1	3 and 4	Homework 2 and 3 due.	1, 3, 4, 5, 6, 8, 11
Week 3	1	1, 2, 3 and 4. Test 1	Homework 3 and 4. Test 1 due.	1, 3, 4, 5, 6, 8, 11
Week 4	2	5 and 6	Homework 5 and 6 due.	7, 9, 10
Week 5	2	6 and 7	Homework 6 and 7 due.	7, 9, 10, 12
Week 6	2	5, 6, and 7. Test 2	Homework 5, 6 and 7. Test 2 due.	7, 9, 10, 12
Week 7	3	8 and 9	Homework 8 and 9	2, 6, 12, 13, 14, 15
Week 8	3	8 and 9	Homework 8 and 9	2, 6, 12, 13, 14, 15
Week 9	3	8 and 9. Test 3	Homework 8 and 9. Test 3 due.	1 – 15.

* Note: Outcomes are listed in the area entitled "STUDENT OUTCOMES," above.

CONSENT AGREEMENT:

A Pierce College course requires frequent interaction with your instructor. It is, therefore, essential that you agree to the conditions set forth in the course syllabus. After you have read the course syllabus, let us know (do not wait) if you do not agree with the course conditions and requirements. If we do not hear from you within three (3) days from the start of the course, we will assume you agree with the conditions set forth in this syllabus.

POLICIES AND PROCEDURES:

Access Pierce College at Joint Base Lewis-McChord and Pierce College District here:
www.pierce.ctc.edu/military/canvas/Policies/index.html